

Environmental Protection Agency

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APPENDIX S TO SUBPART G OF PART 82—  
SUBSTITUTES LISTED IN THE SEP-  
TEMBER 19, 2012 FINAL RULE, EFFEC-  
TIVE DECEMBER 18, 2012.

FIRE SUPPRESSION AND EXPLOSION PROTECTION SECTOR—ACCEPTABLE SUBJECT TO USE  
CONDITIONS

End-Use	Substitute	Decision	Conditions	Further information
Total Flooding ....	Powdered Aerosol F (KSA®) as a substitute for Halon 1301.	Acceptable subject to use conditions.	For use only in normally unoccupied areas.	<p>Use of this agent should be in accordance with the safety guidelines in the latest edition of the NFPA 2010 standard for Aerosol Extinguishing Systems.</p> <p>For establishments filling, installing, servicing, using, or disposing of containers or systems to be used in total flooding applications, EPA recommends the following:</p> <ul style="list-style-type: none"> <li>—appropriate protective clothing (e.g., goggles, particulate removing respirators, and gloves) should be worn during the installation and maintenance of the extinguishing units filled with the agent or during clean up and disposal of this agent;</li> <li>—training should be provided to all employees that would be likely to handle containers of the agent or extinguishing units filled with the agent, required to clean up after discharge or required to work near spaces protected by Powdered Aerosol F.</li> </ul> <p>Releases in all settings should be limited to an appropriate design concentration for the protected space so that increased blood pH level would not adversely affect exposed individuals.</p> <p>Exposed individuals should be given an electrolyte solution to drink afterwards to restore the pH within the appropriate range.</p> <p>Each extinguisher should be clearly labeled with the potential hazards from use and safe handling procedures.</p> <p>In the case of an accidental spill, the area should be well-ventilated, and workers should wear protective equipment while following good industrial hygiene practices for clean-up and disposal.</p> <p>See additional comments 1, 2, 3, 4.</p>

FIRE SUPPRESSION AND EXPLOSION PROTECTION SECTOR—ACCEPTABLE SUBJECT TO USE  
CONDITIONS—Continued

End-Use	Substitute	Decision	Conditions	Further information
Total Flooding ....	Powdered Aerosol G (Dry Sprinkler Powdered Aerosol (DSPA) Fixed Generators) as a substitute for Halon 1301.	Acceptable subject to use conditions.	For use only in normally unoccupied areas.	<p>Use of this agent should be in accordance with the safety guidelines in the latest edition of the NFPA 2010 standard for Aerosol Extinguishing Systems.</p> <p>For establishments filling, installing, servicing, using or disposing of generator units or systems in total flooding applications, EPA recommends the appropriate protective clothing (e.g., goggles, particulate removing respirators, and gloves) should be worn during the installation and maintenance of the extinguishing units filled with the agent or during clean up and disposal of this agent.</p> <p>Powdered Aerosol G should be collected by hand (e.g., with a dustpan and duster or a vacuum cleaner); waste should be collected in suitable drums for disposal and the area should be washed clean with sufficient quantities of water; and training should be provided to all employees that would be likely to handle the agent or generator units filled containing the agent, required to clean up after discharge or required to work near spaces protected by Powdered Aerosol G fixed generator total flooding systems.</p> <p>In accordance with Department of Health and Human Services regulations (42 CFR Part 84), safety glasses and a NIOSH/CDC-approved N99 respirator are required for individuals installing Powdered Aerosol G fixed systems.</p> <p>Each generator unit should be clearly labeled with the potential hazards from use and safe handling procedures.</p> <p>In the case of an accidental discharge, the area should be well-ventilated, and workers should wear protective equipment while following good industrial hygiene practices for clean-up and disposal.</p> <p>See additional comments 1, 2, 3, 4.</p>

## Additional comments:

1—Should conform to relevant OSHA requirements, including 29 CFR 1910, Subpart L, Sections 1910.160 and 1910.162.

2—Per OSHA requirements, protective gear (SCBA) should be available in the event personnel should reenter the area.

3—The agent should be recovered from the fire protection system in conjunction with testing or servicing, and recycled for later use or destroyed.

4—EPA has no intention of duplicating or displacing OSHA coverage related to the use of personal protective equipment (e.g., respiratory protection), fire protection, hazard communication, worker training or any other occupational safety and health standard with respect to halon substitutes.

[77 FR 58043, Sept. 19, 2012;